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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,417	01/17/2002	Bart R. Jones	44563A	9081

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THE DOW CHEMICAL COMPANY  
INTELLECTUAL PROPERTY SECTION  
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EXAMINER

RIDDLE, KYLE M

ART UNIT PAPER NUMBER

3748

DATE MAILED: 10/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant N .

10/051,417

Applicant(s)

JONES ET AL.

Examiner

Kyle M. Riddle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restriction***

1. An initial decision to impose a restriction was made. During a telephone conversation with Norman L. Sims on 09/17/2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-23. Group II, claims 24-25 would normally be withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. Upon further consideration and investigation, however, it was found that the search for Group II claims (24-25) was coextensive with Group I and will be examined together.

### ***Specification***

2. The disclosure is objected to because of the following informalities: The reference as cited on page 1, line 20 reads "5,363,759"; however, it appears to the examiner that it should read --5,636,759--. Also, the reference numeral cited on page 12, line 17 reads "47" pertaining to the adhesive when that reference was previously used to indicate the "perpendicular protrusions". It seems clear that the applicant meant to cite reference number --49-- pertaining to the adhesive.

Appropriate correction is required.

### ***Information Disclosure Statement***

3. The information disclosure statement is objected to because of the following informalities: The first cited patent is numbered "4,345,522" to Kasting, et al. It appears to the examiner that the patent number to Kasting et al. should read --4,345,552--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Regarding claims 10 and 17, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3, 11, 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Mochizuki et al. (U.S. Patent 4,985,523).

Re claims 1, 11 and 18, Mochizuki et al. disclose multiple adhesive sealing compositions with multiple applications that include:

- an engine head and head cover (line 18 of column 1);
- a joint between an engine head and a head cover (line 28, column 7);
- providing a seal with excellent heat resistance and oil resistance for use in internal combustion engines (lines 9-26, column 7).

Re claims 3 and 19, the adhesive sealing compositions of Mochizuki et al. disclose several cure-on-demand techniques (lines 58-68, column 7).

Re claims 20 and 21, the adhesive sealing compositions of Mochizuki et al. disclose various adhesive methods to include irradiation and heat-curing properties (lines 1-8, column 7).

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8. Claims 1-2, 4-5, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Santella (U.S. Patent 5,375,569).

Re claims 1-2, 4-5, and 7, Santella discloses a valve cover (10) and a sealant (16) that encompasses the entire perimeter (Figures 1-2) of the mating surfaces comprising:

- no need for bolts (lines 10-18, column 4 and Figure 2A);
- a valve cover that can be fabricated from different materials to include thermoplastics (lines 60-64, column 1 and lines 26-29, column 4);
- means for securing the assembly to aid in the bonding process (lines 14-18, column 4);
- multiple access ports on top of the valve cover (Figure 2).

Re claim 9, Figure 1 clearly discloses an access port on top of the valve cover.

9. Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by Sattler et al. (U.S. Patent 5,636,607).

Sattler et al. disclose a valve cover assembly that includes all the limitations cited in claim 24 and specifically comprises:

- plastic material (lines 52-53, column 2);
- access ports (Figures 1-6 and lines 35-38, column 2).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Santella in view of design choice.

Santella discloses a thermoplastic valve cover (10) and a sealant (16) that encompasses the entire perimeter of the mating surfaces with multiple access ports. He, however, fails to limit the apparatus to a particular composition.

With regard to applicants claim directed to the composition of the valve cover consisting of nylon 6,6, nylon 6 or a mixture thereof with syndiotactic polystyrene, Santella suggests the use of thermoplastic resins, the claimed plastic would be encompassed thereby. Moreover, there is nothing in the record which establishes that the composition of such presents a novel of unexpected result (See *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975)).

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Santella in view of Sattler et al.

The apparatuses of Santella disclose the invention cited above, however, fail to disclose a valve cover of multiple parts having at least one portion removable providing access to the cylinder head.

Sattler et al. teaches the valve cover can be made of plastic (lines 49-53, column 2) with multiple components and ports (lines 33-38, column 2) that can be removed if needed for access. It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching of Sattler et al. in the apparatuses of Santella, since the use thereof would have provided a more effective means to access the cylinder head.

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13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Santella in view of Sattler et al. as applied to claim 8 above, and further in view of Mammarella et al. (U.S. Patent 6,167,855).

Santella, as modified, discloses the invention cited above, however, fails to disclose the use of the port access to attach other system components.

Mammarella et al. teach that a combination valve cover and intake manifold system molded together can form a module to include provisions for a positive crankcase ventilation valve and fuel rails molded inside, among other components (lines 39-40, column 1 and lines 27-31, column 6). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Mammarella et al. in the valve cover assembly of Santella, since the use thereof would have provided a more versatile means to access system components.

14. Claims 12-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. in view of Santella.

Mochizuki et al. disclose engine heads and engine head covers adhesively bonded together using multiple techniques such as catalysts, irradiation, anaerobically curing, and heat-curing. They, however, fail to disclose the composition, method for securing the covers while curing, or the use of access ports.

Santella teaches that the cover can be composed of plastic or other materials, a means of securing the valve cover for curing purposes, and multiple access ports (see rejections for claims 4-5, 7, and 9 under 35 U.S.C. 102(b), paragraph 8 above). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the

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teaching by Santella in the valve cover assembly of Mochizuki et al., since the use thereof would have provided a more effective valve cover assembly.

15. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. in view of Santella as applied to claim 12 above, and further in view of Sattler et al.

The modified Mochizuki et al. devices disclose the invention cited above, however, fail to disclose a valve cover of multiple parts having at least one portion removable providing access to the cylinder head.

Sattler et al. teaches the valve cover can be made of multiple components and ports that can be removed if needed for access. It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching of Sattler et al. in the modified Mochizuki et al. devices, since the use thereof would have provided a more effective means to access the cylinder head (see rejection for claim 8 under 35 U.S.C. 103(a), paragraph 12 above).

16. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. in view of Santella as applied to claim 16 above, and further in view of Mammarella et al.

Mochizuki et al., as modified, disclose the invention cited above except for the use of the port access to attach other system components.

Mammarella et al. teach that a combination valve cover and intake manifold system molded together can form a module to include provisions for a positive crankcase ventilation valve and fuel rails molded inside, among other components (see rejection for claim 10 under 35 U.S.C. 103(a), paragraph 13 above). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Mammarella et al.



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in the valve cover assembly of Santella, since the use thereof would have provided a more versatile means to access system components.

17. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. as applied to claim 21 above, in view of Santella.

Mochizuki et al. discloses engine heads and engine head covers adhesively bonded together using multiple techniques such as catalysts, irradiation, anaerobically curing, and heat-curing. They, however, fail to completely disclose how the mated surfaces should be made to maintain contact until completion of the bonding process.

Santella teaches the use of connecting the valve cover to the head with or without fasteners. It would have been an obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Santella in the engine head covers of Mochizuki et al., since the use thereof would have provided a more effective means of fastening the engine heads to the engine head covers.

18. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sattler et al. in view of Mammarella et al.

The apparatuses of Sattler et al. disclose the invention cited above, however, fail to disclose the use of the port access to attach other system components.

Mammarella et al. teach that a combination valve cover and intake manifold system molded together can form a module to include provisions for a positive crankcase ventilation valve and fuel rails molded inside, among other components (see rejections for claims 10 and 17 under 35 U.S.C. 103(a) above). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Mammarella et al. in

valve cover assembly of Sattler et al., since the use thereof would have provided a more effective means to access system components.

### *Conclusion*

19. The IDS (PTO-1449) filed on January 17, 2002 has been considered. An initialized copy is attached hereto.

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of 7 patents.

- Locacius (U.S. Patent 4,402,518) discloses a laminated valve cover assembly.
- Juday (U.S. Patent 5,098,743) discloses the use of liquid sealants for engine head covers.
- Okada et al. (U.S. Patent 5,412,024) disclose thermal resins to include syndiotactic polystyrene for use in intake manifolds, L-side covers, and valve covers.
- Jain et al. (U.S. Patent 5,511,518) disclose a sealing assembly for the head, block, manifold, and other components of internal combustion engines.
- Natori et al. (U.S. Patent 5,883,192) disclose numerous resin compositions for use in various automobile parts.
- Frohwerk et al. (U.S. Patent 5,957,100) disclose plastic cylinder head covers with several sealing techniques.
- Bolsover et al. (U.S. Patent 6,302,074) disclose a plastic intake manifold and valve cover module with modifications for various system components.

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*Communication*

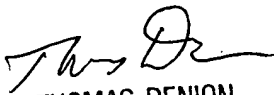
21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle M. Riddle whose telephone number is (703) 306-3409. The examiner can normally be reached on M-F (07:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (703) 308-2623. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9302 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

Kyle M. Riddle  
Examiner  
Art Unit 3748

kmr  
September 24, 2002

  
THOMAS DENION  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700